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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,952	02/16/2001	Toshinori Ono	29287/117	4195

7590 10/08/2004  
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EXAMINER

UHLIR, NIKOLAS J

ART UNIT PAPER NUMBER

1773

DATE MAILED: 10/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action**

Application No.

09/784,952

Applicant(s)

ONO ET AL.

Examiner

Nikolas J. Uhlir

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--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 September 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

**PERIOD FOR REPLY** [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.  
2. ☐ The proposed amendment(s) will not be entered because:  
(a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ they raise the issue of new matter (see Note below);  
(c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_

3. ☒ Applicant's reply has overcome the following rejection(s): The 112 rejection of claim 13.  
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
5. ☒ The a) ☒ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: see attached sheet.  
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.  
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: none.Claim(s) objected to: none.Claim(s) rejected: 1, 2, 8 and 11-16.Claim(s) withdrawn from consideration: 3-7.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.  
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.  
10. ☐ Other: \_\_\_\_\_

**Continuation of box 5(a) and 5(c):** The affidavit or request for consideration has been considered but does not place the application in condition for allowance because:

Applicants in their response argue that the combination of references cited by the examiner, which resulting in a DLC film containing 35 atomic % nitrogen, will not contain 20 or more functional groups containing N atoms per 100 carbon atoms. Applicant basis this argument on an assertion in the declaration that a sputtered nitrogenated DLC film will not be able to contain  $\text{NH}_2$  groups because there is no hydrogen for the nitrogen to react with. This argument is unpersuasive.

Assuming, *arguendo*, that the applicant is correct in that there is no hydrogen present during the sputtering of a DLC film, the applicants argument still is not persuasive.

First, the bulk of applicant's claims do not require a specific concentration of specific functional groups, i.e.  $\text{NH}_2$  to be present. I.e. the "functional groups" of claim 1 could simply be N. Thus, applicant's argument with respect to the formation of  $\text{NH}_2$  groups with respect to claim 1 and other claims that do not require a specific concentration of specific functional groups is unpersuasive. Applicants have not provided any evidence which establishes that a sputtered nitrogenated film containing 35 atomic % N will not necessarily contain the required amount of functional groups for these broad claims.

Second, even when the claims do require specific concentrations of functional groups to be present, their argument is unpersuasive. Applicant's argument is founded solely on the assertion that there is no hydrogen present in the sputtering apparatus

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when a sputtered nitrogenated film is formed. Even if this is so, the DLC film is not going to remain in the sputtering apparatus forever. It will eventually be removed from the apparatus and be exposed to air, which contains a substantial amount of hydrogen. The applicant has not shown (by comparison to the closest prior art or otherwise) that exposing a DLC film containing 35 atomic % N will not result in a film having the required number of functional groups. A mere assertion that the prior art "is not the same" is not a persuasive argument. If applicant provided some concrete evidence, i.e. data or an article that supports their position, the examiner would be happy to reconsider the argument.

Finally, applicant argues that one of ordinary skill in the art would not apply the teachings of Veerasemy to the teachings of Ootake. This argument is irrelevant. The examiner has never asserted that one of ordinary skill would be motivated to modify Ootake per Veeraseemy in any way. Rather, Veerasemy was cited to support the examiners argument that the Ootake DLC film would necessarily meet applicants claim requirements simply by containing 35 at. % nitrogen. No modification of Ootake is required. Thus, applicant's argument and affidavit are unpersuasive in this respect, as they are drawn to an argument that was never made.

  
**D. S. NAKARANI**  
**PRIMARY EXAMINER**